

SEQUENCE LISTING

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 Manoharan, Muthiah  
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 Griffith, Michael  
 Sprankle, Kelly

<120> Peptide Nucleic Acid Conjugates

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 <141> 1997-04-04

<150> PCT/US95/12931  
 <151> 1995-10-06

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<150> 08/275,951  
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<170> PatentIn Ver. 2.1

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<221> misc\_feature  
<222> (18)  
<223> a pentyl N-phthaolyloxymethyl group at the serine  
-O portion of the designated monomer

<400> 83  
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20

<210> 84  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Novel Sequence

<220>  
<221> misc\_feature  
<222> (9)  
<223> a 9-acridinyl group attached via a linking moiety  
to the C-1 position of the 2-aminoethyl portion of  
the indicated monomer

<400> 84  
ctgtctccat cctcttcact

20

<210> 85  
<211> 20  
<212> DNA  
<213> Artificial Sequence

202

<220>

<223> Description of Artificial Sequence: Novel Sequence

<220>

<221> misc\_feature

<222> (9)

<223> a 9-acridinyl group attached via a linking moiety  
to the serine O- position on the designated  
monomers in the oligomer

<220>

<221> misc\_feature

<222> (18)

<223> a 9-acridinyl group attached via a linking moiety  
to the serine O- position on the designated  
monomers in the oligomer

<400> 85

ctgtctccat cctcttcact

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<210> 86

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

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<220>

<221> misc\_feature

<222> (9)

<223> a 2-porphyrin group tethered to the C-1 position  
of the 2-aminoethyl portion of the designated PNA  
oligomer

<400> 86

ctgtctccat cctcttcact

20

<210> 87

<211> 20

<212> DNA

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<222> (9)  
<223> a photonuclease/intercalator ligand attached with  
a tether to the C-1 position of the 2-aminoethyl  
portion of the designated monomer in the oligomer

<400> 87  
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20

<210> 88  
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<222> (9)  
<223> a photonuclease/intercalator ligand attached with  
a tether to the serine O- position of the  
designated monomers in the oligomer

<220>  
<221> misc\_feature  
<222> (18)  
<223> a photonuclease/intercalator ligand attached with  
a tether to the serine O- position of the  
designated monomers in the oligomer

<400> 88  
ctgtctccat cctcttcact

20

<210> 89  
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<220>  
<221> misc\_feature

<222> (9)

<223> a bipyridinyl complex attached via a linker to the  
C-1 position of the 2-aminoethyl portion of the  
designated monomer in the oligomer

<400> 89

ctgtctccat cctcttcact

20

<210> 90

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Novel Sequence

<220>

<221> misc\_feature

<222> (9)

<223> a pentylamino oxymethyl group attached at the C-1  
of the 2-aminoethyl portion of the designated  
monomer in the oligomer

<400> 90

ctgtctccat cctcttcact

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<210> 91

<211> 20

<212> DNA

<213> Artificial Sequence

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<221> misc\_feature

<222> (9)

<223> an HSAB group attached via a tether to the C-1  
position of the 2-aminoethyl portion of the  
designated monomer in the oligomer

<400> 91

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20

<210> 92



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<220>

<221> misc\_feature

<222> (9)

<223> a 6 hexanoate group attached via a tether to the  
C-1 position of the 2-aminoethyl portion of the  
designated monomer in the oligomer

<400> 92

ctgtctccat cctcttcact

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<210> 93

<211> 20

<212> DNA

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<222> (9)

<223> an imidazolyl group attached via a tether to the  
C-1 position of the 2-aminoethyl portion of the  
designated monomer in the oligomer

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<210> 94

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Novel Sequence

<220>

<221> misc\_feature

<222> (9)

<223> complexed Gadolinium ion attached via a tether to the C-1 position of the 2- aminoethyl portion of the designated monomer in the oligomer

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<210> 95

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

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<220>

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<222> (9)

<223> cholesterol attached via a tether to the C-1 position of the 2-aminoethyl portion of the designated monomer in the oligomer

<400> 95

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20

<210> 96

<211> 20

<212> DNA

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<222> (9)

<223> a cholesterol attached via a tether to the serine O-position of the designated monomers in the oligomer

<220>

<221> misc\_feature

<222> (18)

<223> a cholesterol attached via a tether to the serine O-position of the designated monomers in the oligomer

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20

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<220>  
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<222> (3)  
<223> a cholesterol group attached via a tether to the  
C-1 position of the 2-aminoethyl portion of the  
monomer in the oligomer

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4

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10

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<210> 105  
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<400> 110  
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10

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10

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10

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<210> 118  
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<210> 120  
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<400> 125  
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<400> 131  
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<210> 132  
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tgtacgtcac aacta 15

<210> 133  
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10

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10

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<223> Description of Artificial Sequence: Novel Sequence

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10

<210> 139  
<211> 10  
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<223> Description of Artificial Sequence: Novel Sequence

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10

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10

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<400> 141  
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8

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<400> 142  
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8

<210> 143  
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<400> 143  
gcatgcat

8

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8

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<400> 145  
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8

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8

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<222> (5)

<223> the incorporation of a monomeric unit containing a

protected thiol functionality

<400> 147

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18

<210> 148

<211> 22

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<221> misc\_feature

<222> (20)

<223> the incorporation of a monomeric unit containing a  
protected thiol functionality

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22

<210> 149

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Novel Sequence

<400> 149

ttctttctttt

10

<210> 150

<211> 20

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<222> (10)..(11)

<223> Lysine, AHA, Lysine, AHA, Lysine linkage



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20

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<220>  
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<400> 151  
aaaagaagaa

10

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16

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<220>  
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<400> 153  
gatccttttt tttttg

16

<210> 154  
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<220>  
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<400> 154  
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10

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<220>

<223> Description of Artificial Sequence: Novel Sequence

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16

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16

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10

<210> 158  
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gaagaagaaa atgca

15

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16

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16

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<220>  
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<400> 161  
aaaaaaaaaa

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